

Title (en)
Multidirectional ergonomic control unit

Title (de)
Multidirektionale ergonomische Steuereinheit

Title (fr)
Organe de commande multidirectionnel ergonomique

Publication
EP 1970929 A1 20080917 (EN)

Application
EP 08102327 A 20080306

Priority
FR 0753758 A 20070312

Abstract (en)
The invention relates to a multidirectional control unit (10) comprising a lower body (12) of main axis (A), an intermediate part (26) which is mounted to move relative to the body (12) in a radial plane, radial displacement guidance means (40) for the intermediate part (26), a handle (54) of secondary axis B, which is supported by the intermediate part (26) and which is linked to it in radial displacement, between a neutral central position and a plurality of radial actuation positions, the handle (54) being mounted to slide axially on the secondary axis B, between a top idle axial position and a bottom active axial position, at least one electrical switch (92a, 92b) which is able to change state when the handle (54) is displaced towards its bottom active axial position, an elastically deformable bar (82) cooperating with the handle (54), and which supports at least one strain gauge (88a, 88b, 88c, 88d) able to produce an electrical signal representative of said radial displacement of the handle (54), the handle (54) being mounted to rotate freely, about the secondary axis B, relative to the body (12) of the multidirectional control unit (10).

IPC 8 full level
H01H 25/04 (2006.01)

CPC (source: EP US)
G05G 9/047 (2013.01 - EP US); **H01H 25/04** (2013.01 - EP US)

Citation (search report)

- [XY] EP 1524579 A2 20050420 - ALPS ELECTRIC CO LTD [JP]
- [X] EP 1524680 A2 20050420 - ALPS ELECTRIC CO LTD [JP], et al
- [Y] EP 1750195 A1 20070207 - NILES CO LTD [JP]

Citation (examination)
US 6222525 B1 20010424 - ARMSTRONG BRAD A [US]

Cited by
WO2013178357A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
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DOCDB simple family (application)
EP 08102327 A 20080306; CA 2625040 A 20080310; FR 0753758 A 20070312; JP 2008060501 A 20080311; US 4668608 A 20080312